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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Attorney Docket No: ADAPP271
STENFORT et al.	Examiner: Rahman, Fahmida
Application No: 10/800,048	Group Art Unit: 2116
Filed: March 11, 2004	Date: July 23, 2007
For: ALIGNMENT SIGNAL CONTROL APPARATUS AND METHOD FOR OPERATING THE SAME	

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on **July 23, 2007.**
Signed: _____ Kenneth D. Wright

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION -- 37 CFR 192)

Mail Stop: Appeal Brief-Patents
Commissioner for Patents
Alexandria, VA 22313-1450

Sir:

This Amended Appeal Brief is submitted in response to the Notification of Non-Compliant Appeal Brief mailed by the USPTO on June 28, 2007. This Amended Appeal Brief is submitted within the one month period for reply extending to July 28, 2007.

This Amended Appeal Brief is in furtherance of the Notice of Appeal filed in this case on March 14, 2007.

This application is on behalf of:

☐ Small Entity ☒ Large Entity

Pursuant to 37 CFR 1.17(f), the fee for filing the Appeal Brief is:

☐ $250.00 (Small Entity) ☐ $500.00 (Large Entity)

☒ Appeal Brief Fee has already been paid in conjunction with the Appeal Brief filed May 17, 2007.

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply:

☐ Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

Months	Large Entity	Small Entity
☐ one	$120.00	$60.00
☐ two	$450.00	$225.00
☐ three	$1,020.00	$510.00
☐ four	$1,590.00	$795.00

If an additional extension of time is required, please consider this a petition therefor.

☐ An extension for __ months has already been secured and the fee paid therefore of $ is deducted from the total fee due for the total months of extension now requested.

☒ Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that Applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Total Fees Due:

Appeal Brief Fee	$0
Extension Fee (if any)	$0
Total Fee Due	**$0**

☐ Enclosed is Check No. _____ in the amount of $_____.

☐ The Commissioner is authorized to charge the total fees due of $___ to Deposit Account No. 50-0850, (Order No. ___).

☒ The Commissioner is authorized to charge any additional required fees or credit any overpayment to Deposit Account No. 50-0850, (Order No. ADAPP271).

One additional copy of this transmittal is enclosed for fee processing.

Respectfully submitted,
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

EX PARTE STENFORT et al.

Application for Patent

Filed March 11, 2004

Application No. 10/800,048

FOR:

Alignment Signal Control Apparatus and Method for Operating the Same

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APPEAL BRIEF

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 23, 2007.

Signed: _____
Kenneth D. Wright

MARTINE PENILLA & GENCARELLA, LLP
Attorneys for Applicants

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I. REAL PARTY IN INTEREST

The real party in interest is Adaptec, Inc., the assignee of the present application.

II. RELATED APPEALS AND INTERFERENCES

The Applicants are not aware of any related appeals or interferences.

III. STATUS OF CLAIMS

A total of 20 claims were presented during prosecution of this application. The Applicants appeal rejected claims 1-20.

IV. STATUS OF AMENDMENTS

The claims of the subject application were amended in an Amendment submitted on August 22, 2006. All claim amendments have been entered. The present appeal is made from the decision of the Primary Examiner as provided in the final Office Action of November 14, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 discloses an apparatus for controlling an alignment signal transmission in an electronic communication process (paragraph [0019], page 9, lines 3-6). The apparatus includes a counter configured to sequentially modify a count value in accordance with an associated clock signal (paragraph [0019], page 9, lines 6-9). The apparatus also includes a storage cell configured to receive and store an alignment trigger value (paragraph [0019], page 9, lines 6-8 and 13-16). The apparatus further includes a comparator connected to receive the count value as an input from the counter and the alignment trigger value as an input from the storage cell (paragraph [0020], page 9, lines 17-20). The comparator is configured to compare the count value to the alignment trigger

value, and send an output signal from an output port upon equivalence of the count value and the alignment trigger value (paragraph [0020], page 9, lines 17-20). The apparatus also includes alignment circuitry connected to receive the output signal from the comparator (paragraph [0020], page 9, lines 18-22). The alignment circuitry is configured to generate and transmit an alignment signal through an initiator transceiver to a target transceiver in response to receipt of the output signal from the comparator (paragraph [0020], page 9, lines 22-24). The alignment signal represents a dword to be ignored by internal logic of the target transceiver (paragraph [0017], page 8, lines 10-14).

Independent claim 9 discloses a method for controlling alignment signal transmission in an electronic communication process (paragraph [0023], page 10, line 24, through page 11, line 2). The method includes an operation for selecting an alignment trigger value (paragraph [0024], page 11, lines 9-10). The method also includes operating a counter to sequentially modify a count value in accordance with an associated clock signal (paragraph [0024], page 11, lines 13-14). The method further includes an operation for transmitting from an initiator transceiver to a target transceiver an alignment signal in place of a transmission unit when the count value is equal to the alignment trigger value (paragraph [0024], page 11, lines 21-23). The alignment signal represents a dword to be ignored by internal logic of the target transceiver (paragraph [0017], page 8, lines 10-14).

Independent claim 18 recites a computer readable medium containing program instructions for controlling alignment signal transmission in an electronic communication process (paragraph [0023], page 10, line 24, through page 11, line 2, and paragraph [0029], page 13, lines 3-4). Program instructions are included for selecting an alignment trigger value (paragraph [0024], page 11, lines 9-10). Program instructions are also included for sequentially modifying a count value (paragraph [0024], page 11, lines 13-14). Program instructions are also included for transmitting from an initiator transceiver to a target

transceiver an alignment signal in place of a transmission unit when the count value is equal to the alignment trigger value (paragraph [0024], page 11, lines 21-23). The alignment signal represents a dword to be ignored by internal logic of the target transceiver (paragraph [0017], page 8, lines 10-14).

It should be appreciated that the above discussion represents only a summary of the present invention. A more in-depth discussion of the present invention is provided in the Detailed Description section of the application.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1, 3, 5-6, 9, 11-14, 18, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent Application Publication No. US 2005/0188123 A1) in view of Umesh et al. ("Umesh" hereafter) (U.S. Patent Application Publication No. US 2004/0137952 A1).

B. Claims 2, 10, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Sawafta et al. ("Sawafta" hereafter) (U.S. Patent Application Publication No. US 2004/0019432 A1).

C. Claims 4 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Martin et al. ("Martin" hereafter) (U.S. Patent Application Publication No. US 2005/0089012 A1).

D. Claims 7, 8, 16, and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Applicant's Admitted Prior Art (AAPA).

VII. ARGUMENT

A. Rejections of claims 1, 3, 5-6, 9, 11-14, 18, and 20 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh.

Claims 1, 3, 5-6, 9, 11-14, 18, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh.

Independent Claims 1, 9, and 18

1. The combination of Chen and Umesh does not teach generation and transmission of an alignment signal that represents a dword to be ignored by internal logic of a target transceiver.

The Examiner has asserted that the "interval marker" of Chen is equivalent to an alignment signal as recited in each of independent claims 1, 9, and 18. Chen teaches a system and method for inserting interval markers in a data stream. Chen [0007] states that the interval marker insertion scheme can be employed within the iSCSI protocol as described in the iSCSI specification available from the IETF under the designation "draft-ietf-ips-iscsi-20.txt" dated January 19, 2003. Chen [0011] further states that the interval markers may be used as a Fixed Interval Marker (FIM) as defined in the iSCSI specification. Chen [0011] also states that the interval marker insertion scheme can be used with other transmission protocols where interval markers or delimiters are required. However, Chen [0011] only references the iSCSI specification to provide a description of what an interval marker actually represents within the context of Chen's interval marker insertion scheme. Therefore, Chen does not teach or suggest an interpretation of interval marker beyond what is disclosed by Chen and disclosed by the iSCSI specification.

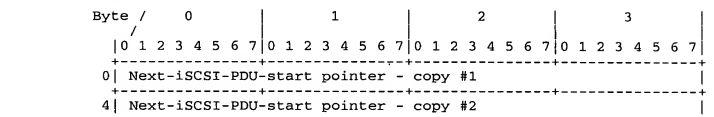
Appendix A of the iSCSI specification states the following:

"Appendix A. Sync and Steering with Fixed Interval Markers

This appendix presents a simple scheme for synchronization (PDU boundary retrieval). **It uses markers that include synchronization**

information placed at fixed intervals in the TCP stream.

A Marker consists of:



The Marker scheme uses payload byte stream counting that includes every byte placed by iSCSI in the TCP stream except for the markers themselves. It also excludes any bytes that TCP counts but are not originated by iSCSI.

Markers MUST NOT be included in digest calculation.

The Marker indicates the offset to the next iSCSI PDU header. **The Marker is eight bytes in length and contains two 32-bit offset fields that indicate how many bytes to skip in the TCP stream in order to find the next iSCSI PDU header.** The marker uses two copies of the pointer so that a marker that spans a TCP packet boundary should leave at least one valid copy in one of the packets.

The inserted value is independent of the marker interval."

As indicated in Appendix A of the iSCSI specification, the interval marker includes synchronization information. Specifically, the interval marker provides information on how many bytes to skip in the TCP stream in order to find the next iSCSI Protocol Data Unit (PDU) header. Additionally, Chen [0011] states that "The iSCSI specification requires that data blocks are dword aligned and that Fixed Interval Markers are required at fixed intervals for data flow management." Based on the foregoing, it is clear that interval markers, as discussed by Chen, provide data for locating PDU headers. Therefore, the interval markers, as discussed by Chen, are in fact processed by the target transceiver in a data transmission in order to extract the data for locating PDU headers to enable management of data flow.

Each of independent claims 1, 9, and 18 recite that the alignment signal represents a dword to be ignored by internal logic of the target transceiver. As discussed above, the interval marker of Chen includes information used for data flow management. The interval marker of Chen is in fact processed by the internal logic of the target transceiver to extract

and utilize the information regarding how many bytes to skip in the TCP stream in order to find the next iSCSI PDU header. Therefore, in contrast to the Examiner's assertion, the interval marker of Chen does not teach or suggest the alignment signal representing a dword to be ignored by internal logic of the target transceiver, as recited in each of independent claims 1, 9, and 18. It should be noted that in applying the combination of Chen and Umesh to reject claims 1, 9, and 18, respectively, the Examiner has relied solely upon Chen to teach the alignment signal representing a dword to be ignored by internal logic of the target transceiver.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Based at least on the foregoing discussion, the Applicants submit that the combination of Chen and Umesh fails to teach each and every feature of claims 1, 9, and 18, respectively, as required to support a rejection under 35 U.S.C. 103. Therefore, the Applicants submit that each of claims 1, 9, and 18 is patentable over the combination of Chen and Umesh.

In view of the foregoing, the Applicants submit that the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over Chen in view of Umesh are in error. Therefore, the Board of Patent Appeals and Interferences ("Board" hereafter) is requested to overturn the Examiner's rejections of claim 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over the combination of Chen and Umesh.

2. The combination of Chen and Umesh does not teach a counter configured to sequentially modify a count value in accordance with an associated clock signal.

The Examiner has asserted that the buffer count (BC) of Chen teaches the count value as recited in each of claims 1, 9, and 18. The Examiner has also asserted that Chen [0059] teaches sequentially changing the value of BC in accordance with a clock signal, as recited in each of claims 1, 9, and 18.

Chen [0033] defines BC as the current number of registers in buffer 402 that contain valid data. Chen [0033] teaches that the value of BC is initialized to zero at the start of the data transfer, and is incremented as buffer 402 is filled. Chen [0037] states that the value of BC is incremented by the width of the data bus (DBin) when new data is read into the buffer 402. Chen [0029] states that DBin can be equal to four (4) 32-bit dwords (DBin=128 bits). Chen [0029] also states that four (4) 32-bits dwords can be read into the registers of buffer 402 in a single clock cycle. Thus, in a single clock cycle, the value of BC can be incremented by 128.

Chen [0039] states that the value of BC is decremented by the width of the data bus (DBout) when data is read out of the buffer 402. Chen [0029] states that DBout can be equal to four (4) 32-bit dwords (DBout=128 bits). Chen [0029] also states that four (4) 32-bits dwords can be read out of buffer 402 in a single clock cycle. Thus, in a single clock cycle, the value of BC can be decremented by 128.

Chen [0042] states that the value of BC is incremented by the size of the interval marker (ML) when an interval marker is inserted into the data stream. Chen (Figure 6) shows that the value of ML can be either one dword (8 bits) or two dwords (16 bits). Because the interval marker is inserted in the data stream in a single clock cycle, the value of BC can be incremented by either 8 bits or 16 bits when an interval marker is inserted into the data stream.

Each of independent claims 1, 9, and 18 requires the count value to be sequentially modified in accordance with a clock signal. Sequential modification of a count value in

accordance with a clock signal means that each time the clock signal cycles, a sequential modification is made to the count value. Sequential modification of a count value means modifying a count value according to a sequence, e.g., 1 to 2 to 3 to 4 to 5, etc.; or 9 to 8 to 7 to 6 to 5, etc. As discussed above, Chen teaches that the value of BC is incremented or decremented in various amounts in a given clock cycle depending upon whether data is read into the buffer, data is read out of the buffer, or an interval marker is inserted into the data stream. Chen teaches that the value of BC can be changed in any given single clock cycle by either plus 128 bits, minus 128 bits, plus 8 bits, or minus 16 bits. Therefore, Chen's teachings with regard to the buffer count (BC) simply do not teach sequential modification of a count value in accordance with a clock signal, as recited in each of claims 1, 9, and 18.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Based at least on the foregoing discussion, the Applicants submit that the combination of Chen and Umesh fails to teach each and every feature of claims 1, 9, and 18, respectively, as required to support a rejection under 35 U.S.C. 103. Therefore, the Applicants submit that each of claims 1, 9, and 18 is patentable over the combination of Chen and Umesh.

In view of the foregoing, the Applicants submit that the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over Chen in view of Umesh are in error. Therefore, the Board is requested to overturn the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over the combination of Chen and Umesh.

3. Neither Chen nor Umesh provide a motivation or suggestion for one of ordinary skill in the art to have combined their respective teachings in the manner suggested by the Examiner.

Umesh discloses a system for avoiding disconnection of a radio link between a radio base station and a mobile station. In the system of Umesh, a timer is used to monitor a radio signal interval, i.e., an amount of time, that has elapsed since a last communication from the mobile station to the base station. If the radio signal interval exceeds a timer threshold, the antenna at the base station is controlled to expand a width of the directional beam pattern previously used to communicate with the mobile station. Thus, the expansion of the directional beam pattern generated by the base station is intended to enable communication with the mobile station in the event that the mobile station has moved since its last transmission to the base station.

It should be understood that the expansion of the directional beam pattern generated by the base station in response to the timer exceeding the timer threshold represents a modification of a direction beam shape transmitted by the antenna of the base station. It should be further understood that the expansion of the directional beam pattern generated by the base station in response to the timer exceeding the timer threshold does not imply transmission of any particular content in the expanded direction beam. Simply stated, Umesh teaches modification of spatial properties of a radio signal direction beam and does teach a particular type of signal content or modification thereof as transmitted via the radio signal directional beam.

Chen teaches a system and method for inserting interval markers in a block-based data stream so as to enable compliance with the iSCSI specification. In contrast to Umesh, Chen is not concerned with radio communication. Also, Chen does not include any teaching related to maintaining a radio link between a base station and a mobile station.

Also, in contrast to Chen, Umesh is not concerned with inserting interval markers into a block-based data stream.

For a claim to be rendered prima facie obvious under 35 U.S.C. 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Simply stated, there is no teaching, suggestion, or motivation provided in either Chen or Umesh to have combined their respective teachings in the manner suggested by the Examiner to reject each of independent claims 1, 9, and 18, under 35 U.S.C. 103. Additionally, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, impermissible hindsight based upon the Applicant's disclosure must be avoided (MPEP 2142). Based on the disparate teachings of Chen and Umesh, it appears to the Applicants that the Examiner has inappropriately used the Applicants' disclosure as a blueprint for combining the teachings of Chen and Umesh, as their respective teachings would not readily suggest combination in the manner asserted by the Examiner.

In view of the foregoing, the Applicants submit that the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over Chen in view of Umesh are in error. Therefore, the Board is requested to overturn the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over the combination of Chen and Umesh.

Furthermore, the Applicants submit that the Umesh reference represents non-analogous art with respect to the Applicants' invention as recited in each of claims 1, 9,

and 18, respectively. A prior art reference is analogous if the reference is in the field of applicant's endeavor or, if not, the reference is reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). The field of the Applicants' endeavor is the field associated with electronic device communication. Umesh's field of endeavor is the field associated with radio signal communication using a directional beam transmitted from a plurality of antennas of a radio base station according to a sector-cell configuration of Code Division Multiple Access (CDMA) scheme adopting spectral spreading. Therefore, the Umesh reference is not in the field of the Applicants' endeavor.

Also, the Applicants were concerned with the problem of managing clock skew between electronic devices that communicate in accordance with a standard protocol but fail to comply with clock frequency tolerances. Umesh is concerned with the problem of maintaining a radio link between a radio base station and a mobile station, when the radio base station is responsible for transmitting a directional beam and the mobile station is moving but not transmitting signals to the radio base station. Therefore, the Umesh reference is not reasonably pertinent to the particular problem with which the Applicants were concerned. In view of the foregoing, the Applicants submit that the Umesh reference represents non-analogous art with regard to each of claims 1, 9, and 18.

Because the Umesh reference represents non-analogous art, the Applicants submit that there is no teaching, suggestion, or motivation for one of ordinary skill in the art to have combined the Umesh reference with the Chen reference to arrive at the invention as recited in each of claims 1, 9, and 18, respectively. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or

implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

In view of the foregoing, the Applicants again submit that the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over Chen in view of Umesh are in error. Therefore, the Board is again requested to overturn the Examiner's rejections of claims 1, 9, and 18 under 35 U.S.C. 103 as being unpatentable over the combination of Chen and Umesh.

Dependent Claims 3, 5-6, 11-14, and 20

As discussed above, the Applicants submit that each of claims 1, 9, and 18 is patentable over the combination of Chen and Umesh. Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, each of dependent claims 3, 5-6, 11-14, and 20 is patentable over the combination of Chen and Umesh for at least the same reasons provided for its independent claim. The Board is requested to overturn the Examiner's rejections of claims 3, 5-6, 11-14, and 20 under 35 U.S.C. 103 as being unpatentable over the combination of Chen and Umesh.

B. Rejections of claims 2, 10, and 19 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Sawafta.

As discussed above, the Applicants submit that each of claims 1, 9, and 18 is patentable over the combination of Chen and Umesh. Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, each of dependent claims 2, 10, and 19 is patentable over the combination of Chen, Umesh, and Sawafta for at least the same reasons provided for its independent claim. The Board is

requested to overturn the Examiner's rejections of claims 2, 10, and 19 under 35 U.S.C. 103 as being unpatentable over the combination of Chen, Umesh, and Sawafta.

C. Rejections of claims 4 and 15 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Martin.

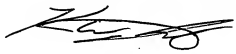
As discussed above, the Applicants submit that each of claims 1, 9, and 18 is patentable over the combination of Chen and Umesh. Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, each of dependent claims 4 and 15 is patentable over the combination of Chen, Umesh, and Martin for at least the same reasons provided for its independent claim. The Board is requested to overturn the Examiner's rejections of claims 4 and 15 under 35 U.S.C. 103 as being unpatentable over the combination of Chen, Umesh, and Martin.

D. Rejections of claims 7, 8, 16, and 17 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Applicant's Admitted Prior Art (AAPA).

As discussed above, the Applicants submit that each of claims 1, 9, and 18 is patentable over the combination of Chen and Umesh. Because a dependent claim incorporates each and every feature of its independent claim, the dependent claim is patentable for at least the same reasons as its independent claim. Therefore, each of dependent claims 7-8 and 16-17 is patentable over the combination of Chen, Umesh, and AAPA for at least the same reasons provided for its independent claim. The Board is requested to overturn the Examiner's rejections of claims 7-8 and 16-17 under 35 U.S.C. 103 as being unpatentable over the combination of Chen, Umesh, and AAPA.

In view of the foregoing, the Applicants submit that each of claims 1-20 is patentable. Therefore, the Applicants respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's rejections of the claims on appeal.

Respectfully Submitted,
MARTINE PENILLA & GENCARELLA, LLP



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VIII. CLAIMS APPENDIX

1. An apparatus for controlling an alignment signal transmission in an electronic communication process, comprising:

a counter configured to sequentially modify a count value in accordance with an associated clock signal;

a storage cell configured to receive and store an alignment trigger value;

a comparator connected to receive the count value as an input from the counter and the alignment trigger value as an input from the storage cell, the comparator configured to compare the count value to the alignment trigger value, the comparator further configured to send an output signal from an output port upon equivalence of the count value and the alignment trigger value; and

alignment circuitry connected to receive the output signal from the comparator, the alignment circuitry configured to generate and transmit an alignment signal through an initiator transceiver to a target transceiver in response to receipt of the output signal from the comparator, wherein the alignment signal represents a dword to be ignored by internal logic of the target transceiver.

2. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 1, further comprising:

a user interface defined to enable setting of the alignment trigger value in the storage cell, wherein the alignment trigger value can be set to any integer value compatible with the storage cell configuration.

3. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 1, further comprising:

a reset link defined to transmit the output signal from the comparator to a reset port of the counter, wherein the counter is configured to restart a counting operation upon receipt of the output signal at the reset port.

4. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 3, wherein the alignment circuitry includes a delay circuit defined to delay transmission of the alignment signal to compensate for a latency associated with resetting the counter.

5. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 1, wherein the clock signal associated with the counter is also associated with the initiator transceiver.

6. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 1, wherein the alignment trigger value is defined to represent a number of transmission units to be transmitted between each alignment signal transmission.

7. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 1, wherein the electronic communication process is performed in accordance with one of a Serial Attached SCSI (SAS) protocol and a Serial AT Attachment (SATA) protocol, the transmission unit is defined as a dword, and the alignment signal is defined as one of an ALIGN(0) primitive,

an ALIGN(1) primitive, an ALIGN(2) primitive, an ALIGN(3) primitive, a NOTIFY(ENABLE SPINUP) primitive, a NOTIFY(RESERVED 0) primitive, a NOTIFY(RESERVED 1) primitive, a NOTIFY (RESERVED 2) primitive.

8. An apparatus for controlling an alignment signal transmission in an electronic communication process as recited in claim 7, wherein each of the initiator transceiver and the target transceiver is a defined as a phy.

9. A method for controlling alignment signal transmission in an electronic communication process, comprising:

selecting an alignment trigger value;

operating a counter to sequentially modify a count value in accordance with an associated clock signal; and

transmitting from an initiator transceiver to a target transceiver an alignment signal in place of a transmission unit when the count value is equal to the alignment trigger value, wherein the alignment signal represents a dword to be ignored by internal logic of the target transceiver.

10. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 9, further comprising:

providing a user interface to enable selection of the alignment trigger value.

11. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 9, wherein the alignment trigger value can be

any value necessary to ensure compatibility between the initiator transceiver and the target transceiver.

12. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 9, further comprising:

operating a comparator to compare the count value to the alignment trigger value.

13. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 12, further comprising:

using an output signal from the comparator to determine when the count value is equal to the alignment trigger value.

14. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 9, further comprising:

transmitting a reset signal to the counter when the count value is equal to the alignment trigger value, the reset signal causing the counter to restart.

15. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 14, wherein transmitting the alignment signal in place of the transmission unit is delayed to accommodate a latency introduced by transmitting the reset signal and causing the counter to restart.

16. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 9, wherein the electronic communication

process is performed in accordance with one of a Serial Attached SCSI (SAS) protocol and a Serial AT Attachment (SATA) protocol.

17. A method for controlling alignment signal transmission in an electronic communication process as recited in claim 16, wherein each of the initiator transceiver and the target transceiver is a phy.

18. A computer readable media containing program instructions for controlling alignment signal transmission in an electronic communication process, comprising:

program instructions for selecting an alignment trigger value;

program instructions for sequentially modifying a count value; and

program instructions for transmitting from an initiator transceiver to a target transceiver an alignment signal in place of a transmission unit when the count value is equal to the alignment trigger value, wherein the alignment signal represents a dword to be ignored by internal logic of the target transceiver.

19. A computer readable media containing program instructions for controlling alignment signal transmission in an electronic communication process as recited in claim 18, further comprising:

program instructions for providing a user interface to enable selection of the alignment trigger value.

20. A computer readable media containing program instructions for controlling alignment signal transmission in an electronic communication process as recited in claim

18, wherein the alignment trigger value can be any value necessary to ensure compatibility between the initiator transceiver and the target transceiver.

IX. EVIDENCE APPENDIX

There is currently no evidence entered and relied upon in this Appeal.

X. RELATED PROCEEDINGS APPENDIX

There are currently no decisions rendered by a court or the Board in any proceeding identified in the Related Appeals and Interferences section.